

CALL FOR APPLICATIONS**PhD in Partial Differential Equations and Calculus of Variations****At the African Institute for Mathematical Sciences (AIMS) in South Africa**

The German Research Chair with specialization in Partial Differential Equations and Calculus of Variations at AIMS South Africa, in collaboration with the Communication and Information Theory Chair at TU Berlin, is offering three PhD positions at AIMS South Africa research center in Cape Town. These positions are made available and funded by the DAAD (German Academic Exchange Service) to promote international academics exchange as well as educational co-operation with developing countries. Successful applicants will be directed to register to the PhD program through the University of Cape Town, the University of Western Cape or the Stellenbosch University.

Scientific interests:

The German Chair's research, at AIMS South Africa, revolves mostly around problems in Fluid Dynamics, games involving a large number of rational agents and optimal transport. The program will introduce PhD students to some interesting and challenging problems such as the *Almost Axisymmetric Flows* arising in Meteorology, *Mean Field Games* and applications of the theory of optimal transport.

Eligibility:

- A two-year Master degree (doctoral candidates)
- Academic excellence
- Strong interest in Partial Differential Equations and Calculus of Variations.
- Good communication skills in English
- A national of an African country (preferably sub Saharan)

Female candidates and candidates from less privileged regions or groups are especially encouraged to apply.

Application documents to submit:

- Letter of motivation
- Research proposal
- Curriculum Vitae
- Copies of university degrees (including transcripts)
- Copy of passport or national ID
- Two reference letters

Please, send completed applications to both joan@aims.ac.za and sedjro@aims.ac.za. Applicants should submit the documents in one single PDF file as "familyname_firstname_PhD_2020.pdf" (e.g. for applicant John Doe, the file will be named Doe_John_PhD_2020.pdf). The reference letters should be submitted directly by the reference writers to the emails above.

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Scholarship benefits:

The PhD positions are tenable for one year, contingent on satisfactory progress, and could be extended for two more years.

Tuition fees	Covered
Allowance	500 EUR (Monthly)
Annual study and research allowance	920 EUR (Annually)
Allowance for doctoral thesis and printing costs	1,025 EUR as a one-off payment

Additional benefits are made available for mobility when commencing and finishing the scholarship in South Africa and for research stay at TU Berlin (up to 12 months) during the course of the doctoral project. Furthermore, the expenditure for the local health insurance is eligible for funding. The positions are expected to start July 1, 2020. For any questions, please email sedjro@aims.ac.za.

Deadline:

The deadline for the PhD application is **January 19, 2020**.

For any questions, please email sedjro@aims.ac.za.

DISCLAIMER: AIMS South Africa reserves the right to disqualify ineligible, incomplete and/or inappropriate applications. AIMS also reserves the right not to make an appointment to the position as advertised or to extend the deadline for applications. Only successful applicants will be contacted.

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